

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/044915 A1

(51) International Patent Classification⁷: **C08L 57/10**,
C08K 5/053, 5/1545, A61L 15/24, 15/60

OKOCHI, Hiroko [JP/JP]; 105, 11, Waku, Aboshi-ku,
Himeji-shi, Hyogo 671-1227 (JP).

(21) International Application Number:
PCT/JP2004/016777

(74) Agent: **MATSUMOTO, Takehiko**; 25-6, Hannan-cho
1-chome, Abeno-ku, Osaka-shi, Osaka 545-0021 (JP).

(22) International Filing Date:
5 November 2004 (05.11.2004)

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-377898 7 November 2003 (07.11.2003) JP

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **NIPPON
SHOKUBAI CO., LTD.** [JP/JP]; 1-1, Koraibashi 4-chome,
Chuo-ku, Osaka-shi, Osaka 541-0043 (JP).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **IKEUCHI, Hi-
royuki** [JP/JP]; 14-12, Kitahirano Minamino-cho,
Himeji-shi, Hyogo 670-0887 (JP). **TORII, Kazushi**
[JP/JP]; F-202, 931-11, Hamada, Aboshi-ku, Himeji-shi,
Hyogo 671-1242 (JP). **IWAMURA, Taku** [JP/JP]; F-202,
931-11, Hamada, Aboshi-ku, Himeji-shi, Hyogo 671-1242
(JP). **MACHIDA, Sayaka** [JP/JP]; 202, 1-1, Honn-
machi, Hirohata-ku, Himeji-shi, Hyogo 671-1114 (JP).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: PARTICULATE WATER-ABSORBENT RESIN COMPOSITION AND ITS PRODUCTION PROCESS

(57) Abstract: An object of the present invention is to provide a particulate water-absorbent resin composition and its produc-
tion process, wherein the particulate water-absorbent resin composition is an enhanced one in both of the "liquid permeability" and
"liquid-sucking-up property" (which have hitherto been antithetical physical properties) of the water-absorbent resin. As a means
of achieving this object, a first particulate water-absorbent resin composition according to the present invention is a particulate
water-absorbent resin composition comprising a water-absorbent resin (A) of a crosslinked structure obtained by polymerizing an
acid-group-containing unsaturated monomer, with the composition being characterized by: having a particle size such that particles
in the range of 850 to 150 ƒÅm (but not including 850 ƒÅm) account for not less than 90 weight % of the entirety; and
containing a tetra- or more functional polyol (B) at least on surfaces.

WO 2005/044915 A1